REMARKS

Claims 1-22 were pending in the present application. The applicants respectfully request reconsideration and allowance of the present application in view of the amendments and the following remarks.

Claims 1-22 stand rejected under 35 U.S.C. 103 (a) as being allegedly unpatentable over Rosen, et al., U.S. Patent No. 6,430,393 (hereinafter "Rosen") in view of Berman, et al., U.S. Patent No. 6,091,934 (hereinafter "Berman"). The rejection is respectfully traversed.

It should first importantly be noted that in combining Berman and Rosen, the Examiner has failed to provide evidence of a suggestion or motivation contained in the references sufficient to motivate one of ordinary skill in the art toward the combination. It is well established that piecemeal application of references which would not normally be combined is strong evidence of classic and improper hindsight reconstruction on the part of the Examiner. It is apparent that Berman is concerned only with allocating scarce supply voltage/power resources to the power supply side of a downlink amplifier, while Rosen is concerned only with uplink and downlink antenna beam forming and steering. The mere fact that both reference relate to satellite systems is not sufficient to provide such a suggestion or motivation since one of ordinary skill in the art would not reasonably be drawn to the combination of the references for any reason whatsoever, let alone for reasons calculated to arrive at the claimed invention. A close review of Rosen, for example, reveals virtually no reference to supply voltage conservation while a similarly close review of Berman reveals no concern for antenna beam steering or the like.

Accordingly, a *prima facie* case of obviousness has not been established and cannot properly be sustained using the combination of Berman and Rose. For this reason alone, the

rejection should be reconsidered and withdrawn. However, assuming, *in arguendo*, that the applied art combination is proper, which applicants vigorously contend it is not, the following reasons are provided to further show that the claimed invention is still not taught or suggested by the applied art combination.

With regard to independent claim 1, the Examiner has maintained the assertion that Rosen teaches elements of the claimed invention. Applicants respectfully submit that while Rosen may describe a lookup table, Rosen fails to teach the claimed packet switch routing self addressed uplink data to a memory, with the memory comprising at least a first and a second downlink beam hop location storage. In Rosen, downlink beam steering is data driven based on cell identifiers in user data addresses. Rosen notably fails to specifically teach that user data packets are stored in anywhere but a queue corresponding to the cell specified in the cell identifier since data is transmitted in a burst when the beam is steered to the cell (col 6, line 61).

At best, Rosen teaches within the section noted by the Examiner that packets contain an address translation to determine whether the packet is to be routed to a single, steerable downlink beam. Another important aspect to note regarding the teachings of Rosen is that, since Rosen clearly teaches beam steering to the extent that a single downlink beam can serve numerous downlink cell locations (see, col 6, line 61), Rosen can be said to teach away from the beam hopping system of the claimed invention. In particular, Rosen clearly fails to teach or even suggest, for these reasons, the claimed memory comprising at least a first and a second downlink beam hop location storage.

The Examiner further admits that Rosen fails to teach or suggest the claimed power amplifier and power gating circuit. To account for the deficiency, Berman is included in the applied art combination as allegedly teaching the claimed power amplifier and gating circuit. Applicants respectfully disagree with the characterization that Berman teaches the claimed

power gating circuit, e.g. a power gating circuit coupled to the power amplifier and including a power gate input responsive to a power gating signal ***to remove RF power*** from at least a portion of the waveform, thereby reducing DC power consumption of the power amplifier.

A close review of Berman reveals that voltage (V_S) *supplied* to high power amplifier 22 can be varied based on a sum of the downlink signal power. In some instances, a command voltage can be applied to the power supply (28) to substitute a commanded voltage level for a sensed voltage level through a switch (32) *to control the voltage V_S supplied*, e.g. to high power amplifier 22 (col 4, line 28). Applicants respectfully submit that the above noted description does not amount to a teaching of a power gating circuit responsive to a power gating signal to remove RF power from at least a portion of the waveform, to reduce DC power consumption of the power amplifier as claimed. Berman at best describes reducing a DC voltage *supplied* to the high power amplifier 22 based on sampling the downlink signal. It is important to note that the claimed waveform is based in part on the uplink data further distinguishing over Berman.

With regard to independent claim 10, Applicants respectfully submit that for many of the same reasons set forth above, Berman, and thus the applied art combination, fails to teach or suggest that, prior to transmission, at least a portion of the frame signal is power gated in response to a power gating signal. Berman, at best, may teach the ability to override sensed downlink signal levels to control the voltage supplied to a high power amplifier as noted above, but this does not amount to a teaching of the claimed feature of prior to transmission, power gating at least a portion of the frame signal in response to a power gating signal.

With regard to independent claim 18, Applicants respectfully submit that for many of the same reasons set forth above, Berman, and thus the applied art combination, fails to teach or suggest a waveform generator coupled to the packet switch, the waveform generator comprising a modulator for producing a waveform to be transmitted and a power gating input for carrying a

power gating signal for removing power from at least a portion of the waveform before transmission. As noted above, the command signal of Berman, at best, controls when voltage supplied to a high power amplifier should be increased or decreased (col 4, line 28). However no power gating signal or waveform generator is taught.

Accordingly, in addition to the improper motivation and corresponding failure to establish a *prima facie* case of obviousness, the *prima facie* case of obviousness has further not been established in that the applied art combination, even if evidence of proper motivation was provided, still fails to teach or suggest all the claimed features as required for the above noted reasons. It is respectfully requested therefore that the rejection of independent claims 1, 10, and 18 be reconsidered and withdrawn to avoid the undue burden associated with expenses of appeal.

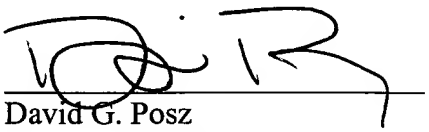
Applicants sincerely believe that the above outlined reasons raise substantial questions as to the alleged teachings of the prior art combination and even as to the legitimacy of the combination itself. Applicants do not believe the remaining rejection would successfully withstand the increased scrutiny associated with a pre-appeal conference for the above reasons, which it should be noted are expanded from the reasons set forth in the previous response.

Claims 1-9, 11-17, and 19-22 by virtue of depending from claims 1, 10, and 18 are believed allowable for at least the reasons set forth hereinabove with regard to claims 1, 10, and 18. It is respectfully requested that the rejection of claims 1-9, 11-17, and 19-22 be reconsidered and withdrawn.

In view of the foregoing, the applicants respectfully submit that this application is in condition for allowance. A timely notice to that effect is respectfully requested. If questions relating to patentability remain, the examiner is invited to contact the undersigned by telephone.

Please charge any unforeseen fees that may be due to Deposit Account No. 50-1147.

Respectfully submitted,



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